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**Charting U.S. Economic Performance with
Alternative Labor Market Indicators:
The Importance of Accounting for Job Quality**

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Abstract

Unemployment and employment rates are the conventional indicators used to measure economic and labor market performance. Their trends suggest that U.S. performance since 1979 has been exemplary, particularly in comparison to much of the rest of the developed world. But these “quantity” indicators do not reflect employment *quality*, a particularly important deficiency for judging U.S. performance because of high and rising wage inequality and an extremely high incidence of very low wage jobs.

We present three alternative labor market indicators designed to measure some key dimensions of job quality: the *low wage share* of wage and salary employment (LWS), for which we use the widely accepted international threshold of two-thirds of the median wage for full-time workers; the *underemployed share* of the labor force (UER), which counts unemployed, low wage and involuntary part-time workers; and the *adequately employed share* of the working age population (AER), which measures those paid above the low wage threshold and not working involuntarily part-time.

The low wage share of wage and salary employment has been fairly stable since 1979. As a result, at the aggregate level (all workers) our alternative labor market indicators show trends over time that are broadly similar to those of the standard “quantity” indicators. But for *young less-educated workers* (for both high school dropouts and for those with a degree but not more than 14 years of schooling), our new indicators show that there has been a dramatic decline in labor market performance, particularly for men.

Despite exemplary economy-wide performance when measured by the standard unemployment and employment rates, our alternative labor market indicators show that the ability of the U.S. labor market to produce jobs with adequate pay for young less-educated workers has declined precipitously over the last three decades.

Main Findings

1. Our LMIs suggest three stylized facts for the 1979-2006 labor market:

- the *low wage share* (LWS) has been stable at about 30 percent of total employment
- the *underemployed* are about one-third of the labor force: the underemployment rate (UER) was 34-35 percent in both 1979 and 2006
- the *adequately employed* account for about two-fifths (40 percent) of the working age population (the AER was 42.8 percent in 2006)

2. For *young moderately educated workers* (20-34 with a high school degree but no more than 14 years of education—about 20 percent of the wage and salary workforce), our LMIs show a dramatic worsening between 1979 and 2006:

- the LWS for young moderately educated workers rose from 18.1 percent to 37.6 percent for men and from 43.5 percent to 52.4 percent for women
- the UER rose from 24.6 percent to 43 percent for young moderately educated men and from 48.8 percent to 56.3 percent for women
- the AER fell from 69.3 percent to 48.8 percent for young moderately educated men and from 34.1 percent to 31.2 percent for women
- average real wages for young moderately educated men and women fell sharply relative to the overall median wage

3. Labor market outcomes also worsened for *young poorly educated workers* (16-34 with less than a high school degree), again most dramatically for men. The LWS for these young men rose from about 53 percent in 1979 to over 72.4 percent in 2006, while their AER collapsed from 26.5 percent to just over 12 percent. There was only a modest worsening for young female dropouts, but by 2006 over 90 percent were paid low wages. Reflecting this extremely high LWS, 92 percent of young female workers without a high school degree were underemployed and only 3 percent were adequately employed.

4. Between 1994-5 and 2005-6, the incidence of low wages for young low and moderately educated workers rose for each of our race/ethnicity by nativity and gender groups, with the notable exception of foreign-born high school dropouts. *Male foreign-born dropouts actually show a substantial decline in the share paid low wages.*

- As a result, there was a striking convergence between 1994-5 and 2005-6 in the low wage shares of native and foreign-born male dropouts: the gap narrowed from 21 to 11.4 percentage points. A smaller convergence took place between native and foreign born young female dropouts, from an 8.3 point gap to just 3.8 points.
- This convergence may reflect downward wage pressure from the rising presence of less skilled immigrant workers: in the last 12 years (1994-2006) nonwhite foreign-born workers increased their share of employed young high school dropouts from about 36 to 54 percent.

1. Introduction

“No single government statistic has a weightier impact on public policy, the stock market and even the public mood than the monthly jobs number. For just about everyone from Joe Sixpack to the Federal Reserve Chairman, the employment figures released on the first Friday of every month are a short-hand way to measure the economy’s strength.”

Wall Street Journal (April 23, 2007)²

“This economy is powerful, productive and prosperous,” George Bush boasted recently, and by many yardsticks he is right. Growth is fast, unemployment is low and profits are fat.... Yet many people feel unhappy about the American model – not least in the United States. Only one in four Americans believes the economy is in good shape. While firms’ profits have soared, wages for the typical worker have barely budged. The middle class—admittedly a vague term in America—feels squeezed. A college degree is no longer a passport to ever-higher pay.”

The Economist (June 17, 2006)³

The American economy is widely recognized as setting the standard for rates of job creation in the developed world.⁴ At the time of this writing, unemployment has dropped to 4.5 percent. This is considerably below the rate reached at equivalent points in the two previous cyclical recoveries: 5.6 percent in 1995 (1995.2 -1996.1) and 6.2 percent in 1987 (Figure 1). The average employment rate for 2006 was 63.3 percent, about the same as in 1995 (62.8 percent) but well above 1987 (61.5 percent) (Figure 2). Looking back over the last four decades, Figures 1 and 2 confirm that only the Clinton boom of 1996-2000 produced superior performance by these two standard indicators. As the quote from the *Wall Street Journal* illustrates, the practice in both media and professional circles has been to rely on the government’s unemployment and employment numbers for the assessment of labor market performance.⁵

² *Wall Street Journal* Editorial (page A16).

³ “Inequality and the American Dream” (p. 13).

⁴ It should be recognized, however, that U.S. unemployment performance has been exceptional only during the 1990s – the U.S. is located in the middle of the pack of developed countries both before the early 1990s and since 2001 (see the OECD Employment Outlook, Statistical Appendix, 2006; see also Howell, 2005, chapter 1).

⁵ Another closely related measure is the labor force participation rate – the employed and unemployed as a share of the working age population. The BLS also publishes involuntary part-time and discouraged worker rates.

The official unemployment and employment rates are “quantity” indicators, designed to measure the numerical adequacy of job opportunities. The unemployment rate counts the number of those who are working age, not employed, and actively looking for work as a share of the labor force (the employed and the unemployed). The employment rate measures the share of the working age population employed for pay for at least an hour a week. Both are useful indicators of labor market performance, especially if used together.⁶

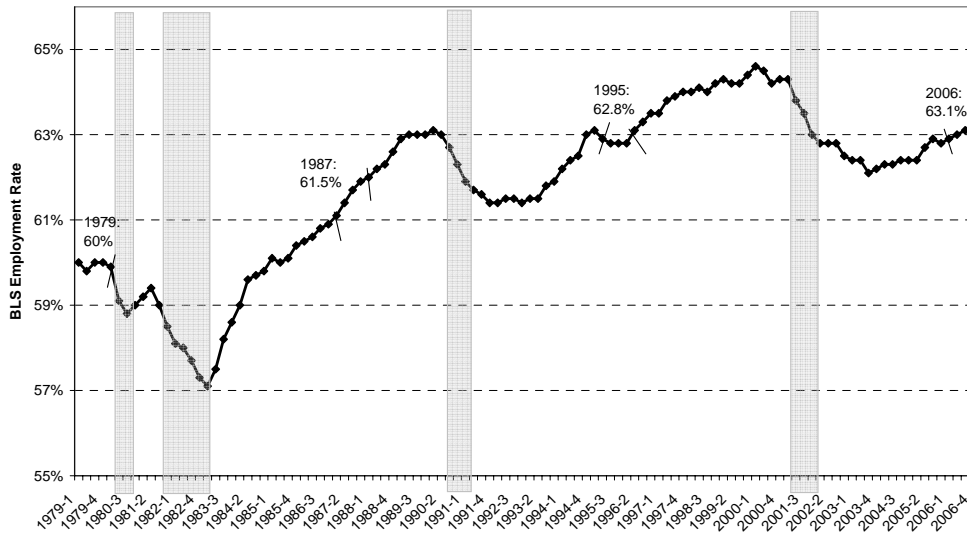
But neither the official unemployment rate nor the official employment rate distinguishes between jobs of different quality. A job paying the minimum wage counts equally in computing these rates as a job paying a six-figure annual salary. Nor do the official unemployment and employment rates distinguish between those who work part-time voluntarily and those who work part-time only because they cannot find full-time work. The basic premise of our Alternative Labor Market Indicator (LMI) project is that labor market performance should reflect the adequacy of earnings as well as the adequacy of the number of job opportunities. Thus, we begin with the premise that the performance of a labor market would be judged superior if it produced, for example, identical unemployment and employment rates, but did so with *lower* wage inequality, a *lower* incidence of low wage jobs, and a *lower* involuntary part-time rate.

⁶ In weak labor markets, the unemployment rate may be stable or even decline (get “better”) if worker discouragement over job prospects causes them to drop out of the labor market. But this will tend to produce a *decline* (worsening) in the employment rate, which would more accurately reflect labor market conditions.

Figure 1: BLS Unemployment rate by quarter, 1979:1 to 2006:4
(age 16+)



Figure 2: BLS Employment Rate by Quarter, 1979:1 to 2006:4
(age 16 +)



In this paper we introduce three new quality-adjusted labor market indicators that are similar in construction to the official Bureau of Labor Statistics' unemployment and employment rates.⁷ Since the living standards of the vast majority of workers are determined

⁷ Earlier versions of these indicators are described in Howell (2005), and in New Labor Market Indicator Reports 1 and 2 (The Schwartz Center for Economic Policy Analysis).

almost exclusively through labor earnings, the most obvious and important indicators of job quality are hourly wages and hours of work (section 1 explains our rationale for not also explicitly accounting for various measures of benefits, working conditions, and worker rights). Our measure of wage adequacy is similar to the Organization for Economic Co-operation and Development's (OECD's) measure of low wages: two-thirds of the median hourly wage for full-time workers (the OECD measure uses weekly earnings). Our measure of the adequacy of working hours is the standard involuntary part-time employment rate.

With these indicators of job quality, we develop three alternative LMIs. The first is the *Low Wage Share of Employment* (LWS): the share of employed wage and salary workers earning below the low wage threshold. The second is the *Underemployment Rate* (UER): the share of the labor force unemployed, working involuntarily part-time, or paid very low wages. The third is the *Adequate Employment Rate* (AER): the share of the working age population employed at wages above the low wage threshold and not working involuntarily part-time. These last two indicators are directly comparable to the standard unemployment rate (a labor force measure) and employment rate (a working age population measure), except that we cover only wage and salary workers and exclude the self-employed (see section 1).

In the next section we provide a brief overview of wage inequality and low pay in the U.S., which motivates the development of alternative quality-adjusted indicators. Section 3 then describes the construction of these measures and Section 4 presents trends for our three alternative indicators for the entire workforce from 1979-2006. The general stability of the incidence of low wages (LWS) over this period produces AER and UER trends that tend to mirror the standard UR and ER indicators – both show notable improvement over the last three business cycle recoveries. On the other hand, Section 5 shows that, as measured by our alternative indicators, labor market outcomes for young, moderately educated workers have worsened dramatically over this period, especially in recent years and especially for men. Section 6 presents shifts attention to the most poorly educated young workers – those without a high school degree. Outcomes for these workers have also worsened substantially

over the last two decades. Section 7 considers differences among these young less educated workers by race, gender and nativity. We conclude in Section 8.

2. The American Model: Low Wages and High Inequality

The American economy is renowned for both job creation and high earnings inequality, characterized by very high earnings at the top and very low earnings at the bottom. According to OECD figures, male earnings inequality as measured by the 90/10 ratio (the 90th percentile worker to the 10th) was just over 3.5 in 1980 and rose fairly steadily to about 4.7 in 1995, where it remained for the rest of the decade. Female earnings inequality has also shown a strong upward trend. In contrast, continental Europe and the Nordic countries show 90/10 ratios that were flat over this period and were lower, in the 2-3 range. France is the exception—also stable but in the 3.3-3.4 range (Howell and Huebler, 2005, figures 2.3 and 2.4). Similar results for 1995-2005 appear in the OECD's Employment Outlook (OECD 2007, Statistical Annex: Table H).

Wage inequality *within* both the top half of the earnings distribution (measured by the 90/50 ratio) and the bottom half (the 50/10 ratio) increased sharply in the 1980s, but only inequality at the top continued to rise dramatically in the 1990s (Autor, Katz and Kearney, 2006, figure 1). Using IRS data, Piketty and Saez (2006) show that this growth was driven almost entirely by the increasing concentration of income at the very top of the distribution (shown by the explosion of income share of the top one percent, and even more strikingly, the top .1 percent). These increases were far greater than any other developed country, though both the UK and Canada show notable increases (Piketty and Saez, Figures 3a and 3b).

While the very top of the income ladder has pulled away from the rest, most workers are likely to gauge their relative well-being less by reference to how the top one percent is faring than by how well they are doing over time and by how their pay compares with those of other workers in their part of the wage distribution. Unfortunately, for nearly all workers real wages have been stagnant for decades and the incidence of low wages (measured against the

median) has risen. Levy and Temin (2007, figure 9) show that even for male prime age workers with moderate to fairly high educational attainment (high school degree and college degree holders, respectively), real earnings have been essentially flat since the mid-1970s. For the U.S. in 2005, the OECD's measure of the incidence of low wages (those paid less than two thirds of the median weekly earnings for full-time workers) was 24 percent. This compares to 20.7 percent for the U.K., 15.9 percent for Australia, 15.8 percent for Germany, and just 6.4 percent for Sweden (OECD 2007, Statistical Annex, Table H).

3. Three Alternative Labor Market Indicators

The official unemployment and employment rates are designed by distinguishing between two parts of a given population: the unemployment rate starts with the labor force and distinguishes the employed from those without a job but who are actively looking for work; the employment rate sets the employed against the entire working age population.

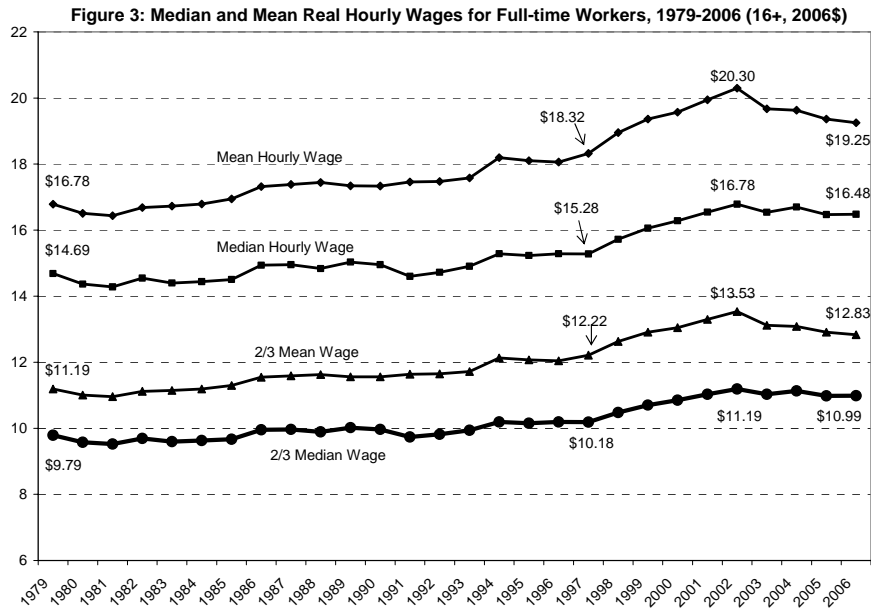
Our goal has been to incorporate two simple measures of job quality using the same approach. We distinguish “low” wages from the full wage distribution and “involuntary” part-time workers from all other employed workers. Of course, benefits and various nonpecuniary factors (e.g., working conditions and on-the-job rights and voice) are also critically important dimensions of job quality. But since our aim was to keep the indicators as simple and as uncontroversial as possible, we use just two measures of job quality: hourly wages and involuntary part-time work. This simple approach also serves to facilitate future work on international comparisons.

This approach led to the development of three alternative labor market indicators. These are measured with respect to employment, the labor force, and the working age population. The low wage share of employment (LWS) is measured by taking those paid less than two thirds of the median hourly wage for full-time wage and salary workers as a share of total wage and salary employment. The second is the underemployment rate (UER): unemployed, low paid (by the above definition), and involuntary part-time workers as a share of the labor force. The third is the adequate employment rate (AER): those employed at wages above the

low wage threshold and not working involuntarily part-time as a share of the working age civilian population.

Many alternative “low wage” thresholds could be argued to be equally reasonable. We use a relative measure—two-thirds of the median hourly wage for all full-time workers—rather than a quasi-absolute one, such as the wage that would support a particular number of household members at a particular budget level. There are three main reasons. First, the household budget threshold is ultimately relative as well, since its determination depends on decisions about what is an “adequate” budget for a household of a particular size (say, a basic food budget multiplied by three), which in turn can only reflect prevailing social norms and a particular economic and social context. Second, our concern is to produce indicators for assessing labor market performance, not the adequacy of household income. For this purpose, it is a job’s wages and hours that matter. In addition, adequacy of household income requires the considerable complication of adjusting for household size and composition. And third, a relative measure facilitates cross-country comparisons. In particular, our wage threshold (two thirds of the median full-time wage) is similar to that used by international research organizations like the OECD. The international norm is to identify the “poverty wage” as one-half the median wage.

Figure 3 shows median and mean hourly wages for full-time wage and salary workers from 1979 to 2006 (in 2006 dollars). The median rose slowly from \$14.09 in 1979 to \$15.28 in 1997, increased steadily to \$16.78 over the next five years (the Clinton boom), and has fallen slightly since (to \$16.48 in 2006).



The *mean* hourly wage appears as the trend at the top of Figure 3. It began at a little more than \$2 higher than the median in 1979 (14 percent higher than the median), rose to \$18.32 in 1987 (20 percent higher) and still faster to \$20.30 in 2002 (21 percent higher), before falling back to \$19.25 in 2006 (17 percent higher). The growing gap between the mean and the median through 2002 reflects the rising share of income going to the top of the earnings distribution. This has continued even more dramatically since the early 2000s (see the introduction), but it is increasingly concentrated in the top 1 percent (and .1 percent), which the adjustments for the top coding of the Current Population Survey (CPS) data fail to capture (on the top coding in these data, see Schmitt, 2003).

The trend shown in bold at the bottom of Figure 3 is our low wage threshold—two-thirds of the median full-time hourly wage. This increased very gradually from \$9.79 in 1979 to \$10.18 in 1997, rose more rapidly to \$11.19 in 2002, and then dropped back to \$10.99 in 2006.

Unlike the official unemployment and employment rates, our LMIs are calculated for wage and salary workers only. The self-employed are excluded from the LMIs because information on the hourly wages of this group are not available in the underlying data—there is no simple way to assess the quality of self-employment. The SCEPA

Underemployment Rate also does not include an estimate of discouraged workers.⁸ The data used to compute the LMIs is from the Center for Economic and Policy Research (CEPR)'s CPS ORG Uniform Data File.⁹

4. Aggregate Trends in the Alternative LMIs

The official unemployment and employment rates shown in Figures 1 and 2 present a strikingly positive portrait of U.S. labor market performance over the last two and a half decades. The long run improvement in these standard measures is clearly evident in the trends and is confirmed by the rates shown at the five-year mark in each business cycle.¹⁰

Figure 4: Low-wage Share of Wage and Salary Employment, 1979 to 2006
(age 16 +, seasonally adjusted with 3-quarter moving average)

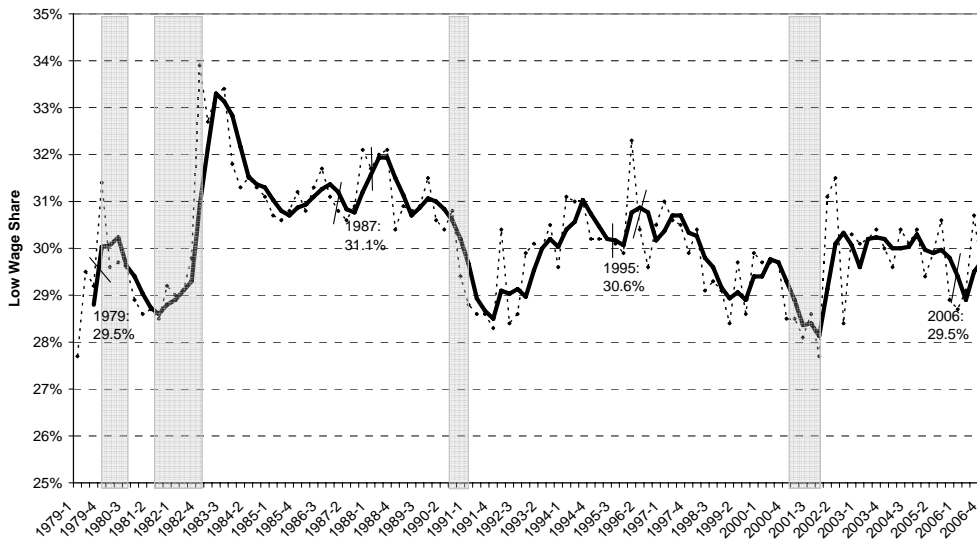


Figure 4 shows that our key measure of changes in job quality—the trend in the low wage share (LWS) of wage and salary employment—also shows improvement over the three

⁸ We believe that the official discouraged worker estimates are too low and too stable to be believable – as employment drops by millions of workers in slack times, there is little or no change in the official number of discouraged workers.

⁹ The underlying data for the CEPR ORG extracts is the CPS "Annual Earnings File" data from the National Bureau of Economic Research (NBER) from 1979 to 2002. From 2003 on, the underlying data for the CEPR ORG extracts is the monthly CPS Basic files, which are available in the public domain (www.bls.census.gov). CEPR provides the entire program used to produce the CEPR org extracts on the CEPR webpage (www.cepr.net).

¹⁰ These 5th year marks are: 1987.1-1987.4, 1995.2-1996.1, and 2006.1-2006.4.

business cycles, although not nearly as strongly as the two conventional quantity measures. The LWS fell 1.6 percentage points over these two decades, from 31.1 percent in 1987 to 29.5 percent in 2006. Less impressively, this improvement put the LWS exactly where it was in 1979. It seems that a stylized fact of the U.S. labor market is that, by the widely accepted two-thirds of the full-time median measure, 30 percent of U.S. workers are paid low wages.

Since the LWS is by far the largest component of our two alternative indicators, its relative stability means that the trends in the UER and AER are driven by their quantitative components - the unemployment rate and employment rate, respectively. Figure 5 shows that the 1980-82 recessions pushed the UER up from 35 percent in 1979 to over 42 percent in 1983. It then declined over each of the three business cycle midpoints, from 36.9 percent in 1987 to 33.8 percent in 2006. Even at the height of the Clinton boom, about one-third of the U.S. labor force was underemployed. Much less a constant than the low wage share of employment, we can say that a second stylized fact of the U.S. economy since the late 1970s is that at least one third of the U.S. labor force is underemployed.

Figure 5: The SCEPA Underemployment Rate, 1979 to 2006
(age 16 +, seasonally adjusted with 3-quarter moving average)

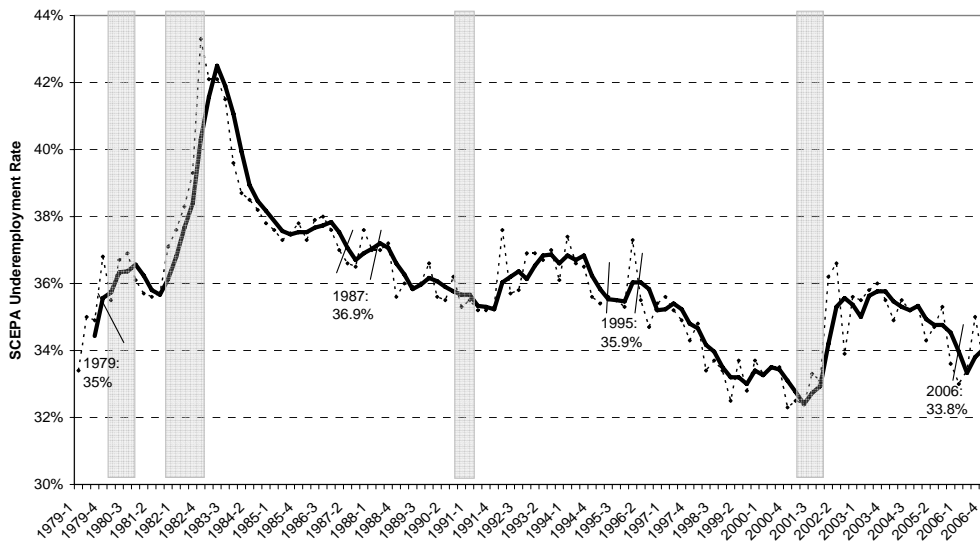
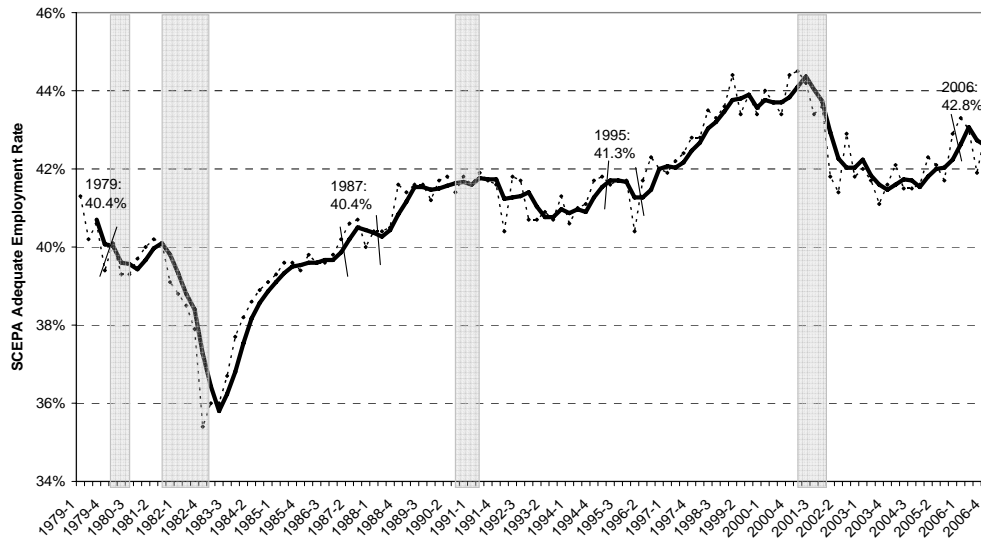


Figure 6 shows that the Adequate Employment Rate (AER) was 40.4 percent in both 1979 and 1987, rose to 41.3 percent in 1995, and improved further to 42.8 percent in 2006. This also suggests a rough stylized fact: just over two-fifths of the U.S. working age population is employed in “adequate” wage and salary jobs.¹¹

Figure 6: The SCEPA Adequate Employment Rate, 1979 to 2006
(age 16 +, seasonally adjusted with with 3-quarter moving average)



5. Outcomes for Young Moderately Educated Workers

As a result of the U.S.’s high incidence of very low wages, these levels of underemployment and adequate employment are unquestionably the worst in the developed world (Howell, 2005). But the *trends* just documented appear quite impressive. The picture changes, however, when we turn to young less-educated workers. We begin by looking at outcomes for 20-34 year olds with at least a high school degree and no more than 14 years of schooling (two years of college). This is a particularly important population against which to judge labor market performance for at least two reasons: first, the economist’s favorite solution to nearly all labor market problems is education and skills—the human capital strategy will be more effective the greater the incentive to invest in schooling by completing

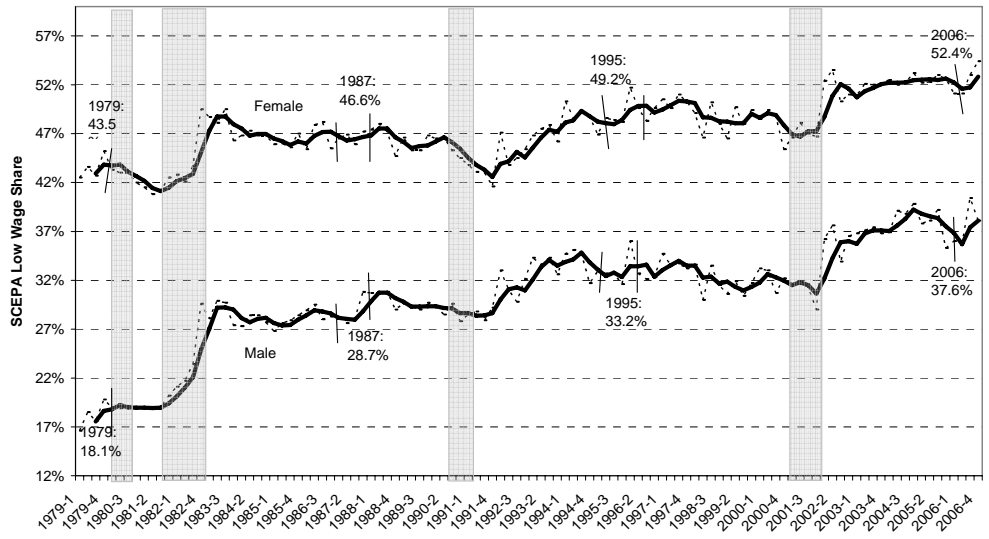
¹¹ As indicated above, we do not include the self-employed, whose “job quality” is difficult to measure.

the high school degree and adding some college education; and second, the labor market conditions young adults face may be a harbinger of the future for the entire workforce. In contrast, many older workers are protected against the downward wage effects and increased insecurity of the new competitive labor market via institutions and social norms established earlier in the post-war period.

Between the mid-1980s and the last recession, the young moderately educated share of total wage and salary workers declined steadily, from about 30 percent in 1985 to less than 22 percent in 2001. Male shares were 1.5-2 percentage points higher than female shares over this period, but this gap has widened since 2001 as the young moderately educated male share remained steady at over 11 percent share between 2001 and 2006 while the female share continued to fall, from 10 to 9 percent (See Appendix Figure A1). In contrast, the young high school dropout share of total employment fell from over 5 percent in 1979 to about 3 percent in 1995, where it remained since. But there is some evidence of a divergence in male and female rates since the last recession, with slight increases for men and decreases for women (See Appendix Figure A2). This long-term stability masks a dramatic change in composition, as nonwhite foreign-born workers increased from just over 35 percent of all young high school dropout workers in 1994 to about 54 percent in 2006 (See Appendix Figure A3).

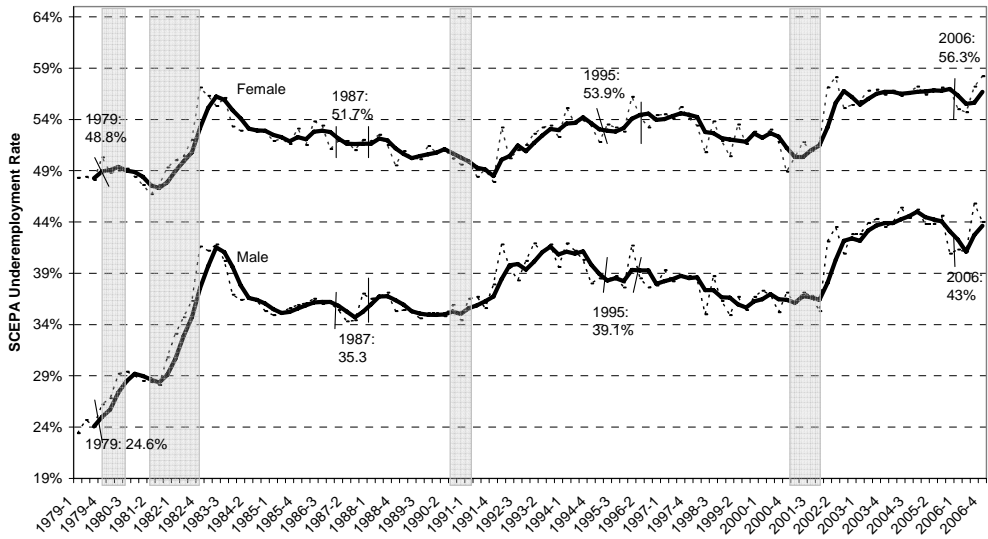
How has the low wage share of employment (LWS) changed for these young workers? The short answer is that there has been a striking increase in low wage employment. Figure 7 shows a rising (worsening) trend in the LWS for young moderately educated workers for both male and female workers. But this worsening has been far more severe for young men, so the result has been a substantial convergence in male and female low wage employment rates. Thus, from 1979 to 1987, the young male LWS rose from 18.1 to 28.7 percent, while the young female rate rose only modestly, from 43.5 percent to 46.6 percent. Convergence continued over the next twenty years: the male LWS rose 8.9 points to 37.6 percent in 2006; the female UER rose 5.8 points to 52.4 percent.

Figure 7: The SCEPA Low-Wage Share of Wage and Salary Employment for Young Workers with Moderate Educational Attainment, 1979 to 2006 (age 20-34 with at least HS degree and not more than 14 years of schooling)



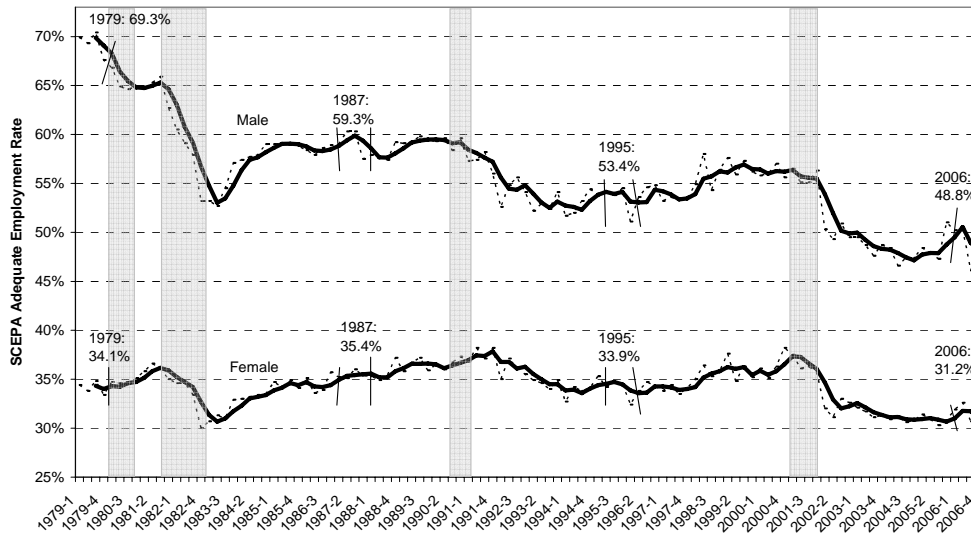
Our underemployment and adequate employment indicators show similar trends. Figure 8 reports a huge increase in underemployment for young male workers between 1979 and 1987: from 24.6 percent to 35.3 percent. The UER then continued to rise substantially over the next two decades: to 39.1 percent in 1995 and again to 43 percent in 2006. Underemployment rose much more gradually for female workers, from 48.8 percent in 1979 to 56.3 percent in 2006.

Figure 8: The SCEPA Underemployment Rate for Young Workers with Moderate Educational Attainment, 1979 to 2006
(age 20-34 with at least a high school degree but not more than 14 years of schooling)



Similarly, Figure 9 reports collapsing adequate employment rates for young moderately educated men and gradually declining AERs for similarly defined women. In 1979, over 69 percent of these men were adequately employed. By 2006, less than half (48.8 percent) were adequately employed. Just over one-third of young moderately educated females were adequately employed over most of this period, but this number has fallen to 31-32 percent since the last recession. The young moderately educated female AER was just 31.2 percent in 2006.

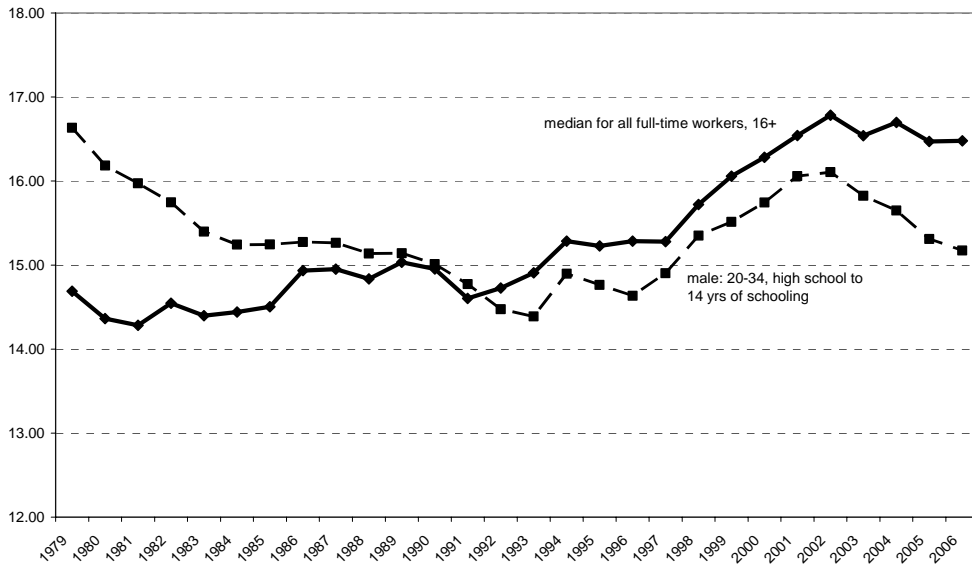
Figure 9: The SCEPA Adequate Employment Rate for Young Workers With Moderate Educational Attainment, 1979 to 2006 (age 20-34 with at least a high school degree and no more than 14 years of schooling)



In sum, Figures 7-9 show quite different results for young moderately educated male and female workers: worse levels of performance for women but more rapidly declining performance for men. Since the late 1970s, young moderately educated female workers show much worse levels of performance on our three alternative indicators than their male counterparts, and these rates have worsened steadily from 1979 to 2006: the female LWS rose from 42 to 52 percent; the UER rose from 49 to 56 percent; and the AER fell from 34 to 31 percent. But the magnitude of these changes was even worse for young moderately educated men: their LWS rose from 18 to almost 38 percent; their UER rose from just below 25 percent to 43 percent; and their AER plummeted from almost 70 percent to 49 percent.

What has happened to their real wages? Figures 10-12 show trends in real wages for young moderately educated workers. Figure 10 contrasts the median real wage trend for young moderately educated male workers with the median real wage for all full-time workers (16 and older). The figure shows a “switch” in the early 1990s: whereas the median for these young men was much higher than the overall median just 10 years earlier, since the early 1990s the opposite has been the case, with young moderately educated male wages falling sharply relative to the overall median since 2001.

Figure 10: Real Wage Trend for Young Male Workers with Moderate Education Levels Compared to the Median Wage for All Full-Time Workers, 1979-2006



Since female wages are much lower, Figure 11 sets the young moderately educated female real wage against our low wage threshold—two-thirds of the median for all full-time workers. The same widening gap appears over the last two and a half decades. In 1979, the gap was only a few cents; by 2006 it had opened up to over \$2 (\$11 to less than \$9).

Figure 11: Mean Real Wage Trends for Young Female Workers with Moderate Levels of Education Compared to the Economy-Wide Low Wage Threshold, 1979-2006

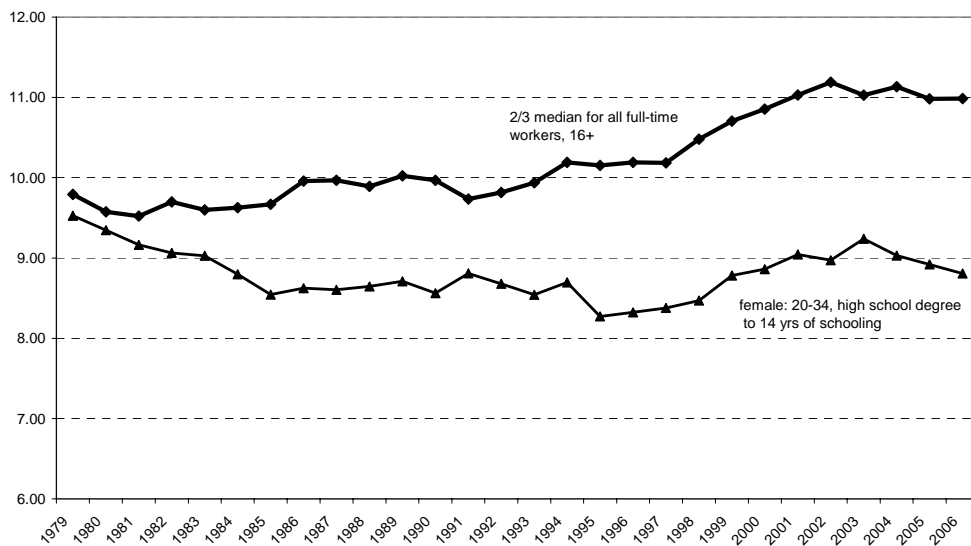
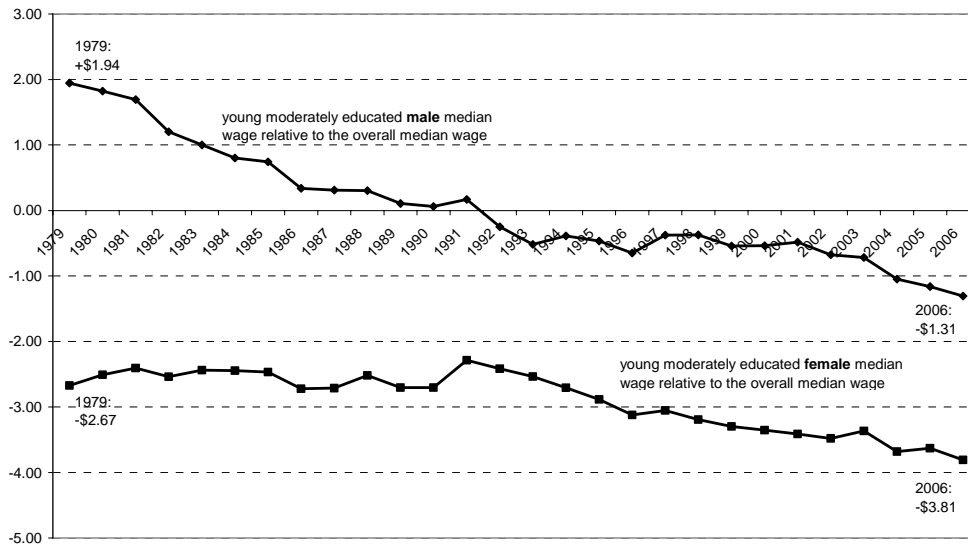


Figure 12 shows the gap in dollars between the overall median wage for full-time workers and the median male and female wages for young moderately educated workers. From \$1.94 *above* the overall median in 1979, the young moderately educated male wage fell to \$1.31 *less* than the overall median in 2006. For these young female workers, the gap grew from -\$2.67 to -\$3.81.

Figure 12: The Growing Gap Between the Overall Median Wage (16+) and the Median Wage for Young Moderately Educated Male and Female Workers, 1979-2006 (in 2006 dollars)



6. Outcomes for Young Poorly Educated Workers

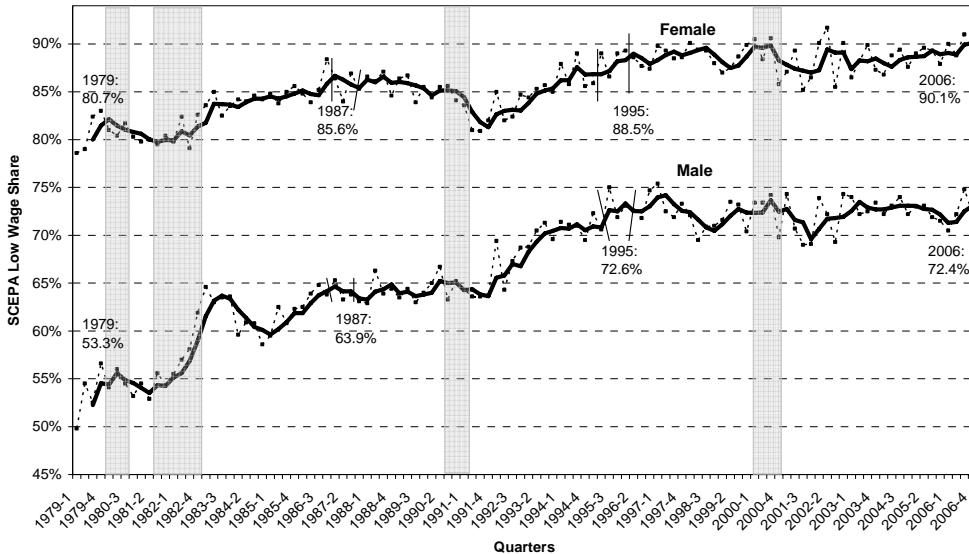
Has the labor market also performed poorly for young workers with the least educational attainment? This section focuses on our three alternative labor market indicators for young (16-34) workers with less than a high school degree.

Figure 13 shows that in 2006 about 90 percent of young female workers without a high school degree were paid below our low wage threshold, almost 10 percentage points higher than the rate in 1979. The relative position of young female high school dropouts has steadily worsened over these last 27 years.

While a substantially smaller share of young male dropouts are paid low wages (72.4 percent in 2006), the *decline* of this measure of labor market performance has been far greater. Figure 13 shows that share of jobs held by young men without a high school degree

that pay low wages rose rapidly in both the early 1980s and early 1990s. As a result, between 1979 and 1995, the low wage share for these workers increased from just over 53 percent to nearly 73 percent.

Figure 13: SCEPA Low-Wage Share of Wage and Salary Employment for Young Workers With the Lowest Educational Attainment, 1979-2006 (ages 16-34 with less than a high school degree)



The trends are similar for the underemployment and adequate employment rates. Figure 14 shows that the UER for young *male* high school dropouts rose from about 62 percent (of the labor force) in 1979 to 72 percent in 1987s, and has remained in the 77-79 percent range since the mid-1990s. The UER trend for young *female* dropouts has been much more stable, increasing from 85 percent in 1979 to 90-92 percent since the mid-1990s.

At least in percentage terms, the most dramatic decline in labor market well-being of young dropouts is measured by the AER for young men, shown in Figure 15. Whereas over 26 percent of young male dropouts had adequate jobs in 1979, this dropped sharply to 13.2 percent in 1995 and then fell slightly to 12.3 percent in 2006. For young female workers, the AER has fallen gradually since the early 1980s, from about 5 percent to 3.1 percent in 2006.

Figure 14: The SCEPA Underemployment Rate for Young Workers With the Lowest Educational Attainment, 1979-2006 (ages 16-34 with less than a high school degree)

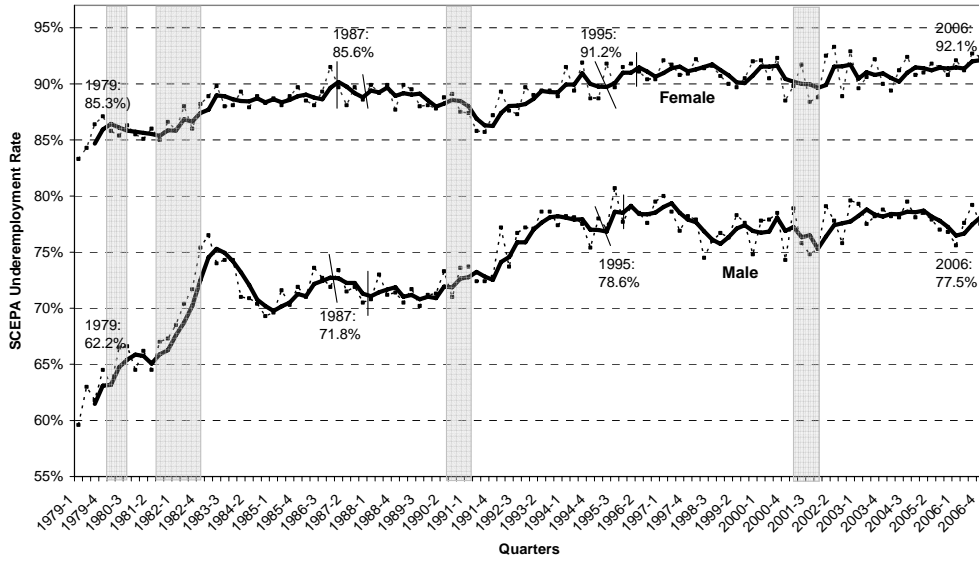
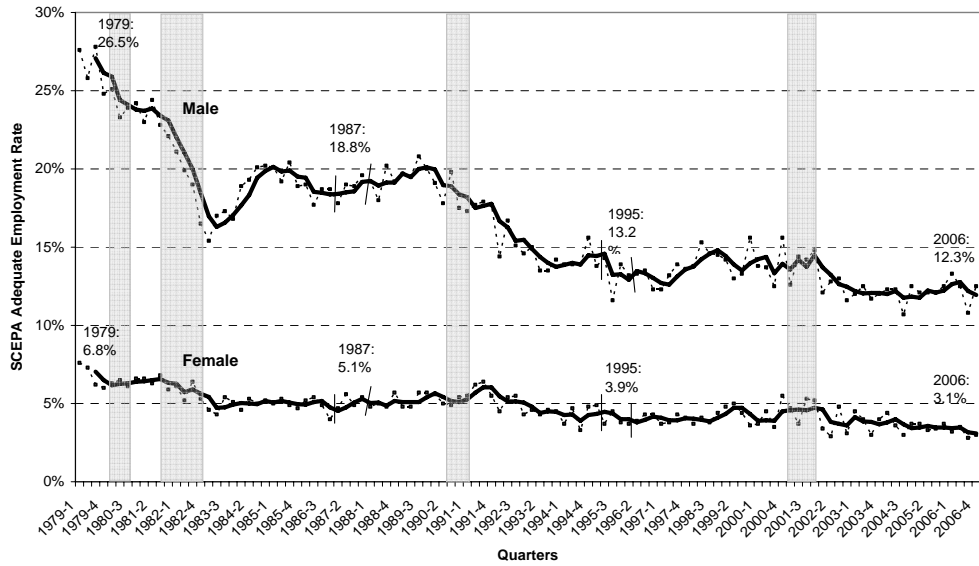


Figure 15: The SCEPA Adequate Employment Rate for Young Workers with the Lowest Educational Attainment, 1979-2006 (ages 16-34 with less than a high school degree)



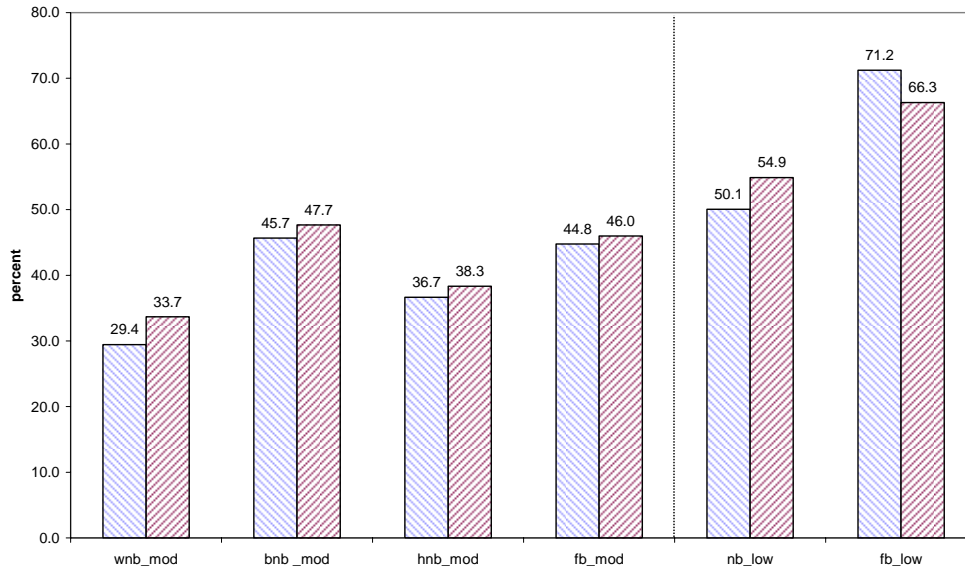
7. Outcomes by Race and Nativity

Finally, we explore changes in the *quality* of employment opportunities for these young less-educated workers by showing recent trends in both the low wage share (LWS) and the median real wage for different race and nativity groups. Specifically, we focus on moderately educated native-born white (nbw), native-born black (nbb), native-born Hispanic (nbh) and foreign-born (fb) groups as well as native- and foreign- workers with less than a high school degree (nb_low and fb_low).¹² Figures 16-19 cover just 1994-2006 because data on foreign-born residents is not available from the CPS for earlier years. Since the sample sizes are smaller, we average the first two years (1994-5) and last two years (2005-6). These two-year comparison points appear at about the same points in the business cycle (3-4 years after the 1990 recession and 4-5 years after the 2001 recession).

Figures 16 and 17 present the LWS for the six male and six female demographic groups listed above. Figure 13 shows that the incidence of low wage employment increased for all but the least advantaged group – foreign born workers with less than a high school degree. It is of particular interest that the biggest changes occurred in the high school dropout group and resulted in a strong convergence between native- and foreign-born workers. A gap of about 21 percentage points in 1994-5 (71.1 percent fb and 50.1 percent nb) closed to just 11.4 points in 2005-6 (66.3 percent and 54.9 percent). It is also notable that among moderately educated young men, black native-born (bnb_mod) show the highest incidence of low wages at the beginning and end of the period. The native-born black male LWS was 14 points higher than native-born white male LWS (47.7 percent and 33.7 percent) and over 9 points higher than their Hispanic counterparts (38.3 percent).

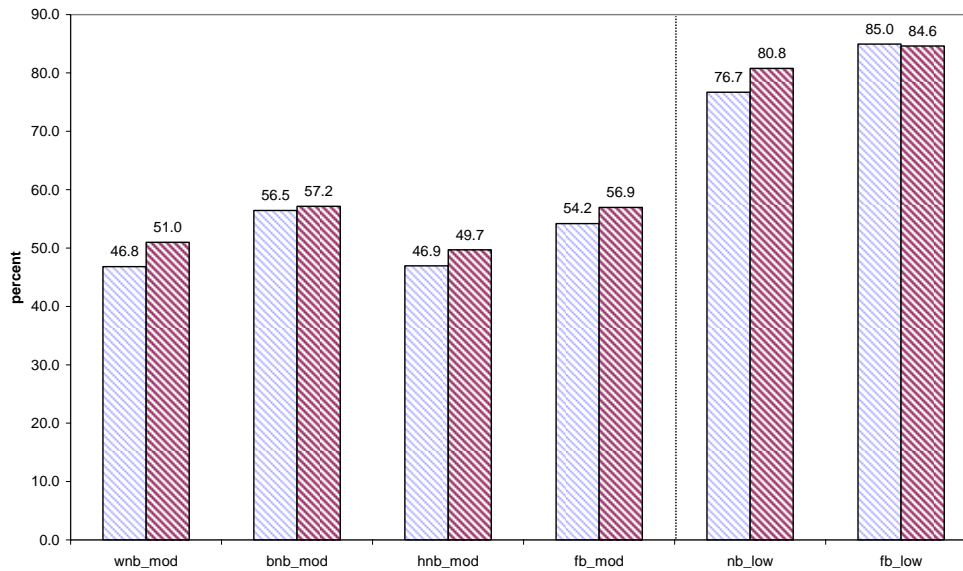
¹² For comparability, we present results for ages 20-34 for both moderate and low-educated workers. We show results only for the more aggregated native and foreign-born groups of high school dropouts since the latter are much smaller in number and we were concerned with how representative the samples would be.

Figure 16: The Low Wage Share of Employment for 20-34 Year Old Males by Race, Nativity and Educational Attainment, 1994-5 and 2005-6



For female workers, Figure 17 shows the same convergence among the least educated: the female native- to foreign-born gap fell from 8.3 points (85 percent and 76.7 percent) to just 3.8 points (84.6 percent and 80.8 percent). The pattern across race/ethnicity groups for moderately educated female workers mirrored the male results: a rising incidence of low wage employment over this decade, with the highest rates for native black workers (57.2 percent in 2005-6) and lowest for white and Hispanic native-born women. Interestingly, the LWS was lowest for Hispanic women: 49.7 percent compared to 51 percent for white women.

Figure 17: The Low Wage Share of Employment for 20-34 Year Old Females by Race, Nativity and Educational Attainment, 1994-5 and 2005-6



These results show an unequivocal and fairly sizable worsening in job quality almost across demographic groups relative to the median, with just one exception (foreign-born dropouts).¹³ But as noted above, that does not necessarily mean that job quality worsened in absolute terms.

Figure 18 shows that real median wages for young male workers rose for each of the six demographic groups. The most impressive gain was, again, for foreign-born workers with the least education (from \$8.36 to \$9.77). Among moderately educated native-born workers, black men had the lowest median wages: \$11.85 in 2005-6, compared to \$13.41 for Hispanic men and \$14.30 for white men. Figure 19 shows that the median real wage for our female demographic groups also increased for each demographic group. While the general pattern is the same as for men, it is notable that the wage gaps between black, Hispanic and white native-born women with moderate levels of education is much less pronounced (in 2005-6: \$10.81, \$11.79 and \$11.82 respectively).

¹³ We plan to explore these results further in future work by looking at changes in employment for each demographic group across occupations and industries.

Figure 18: Real Median Wages for 20-34 Year Old Males by Race, Nativity and Educational Attainment, 1994-5 and 2005-6

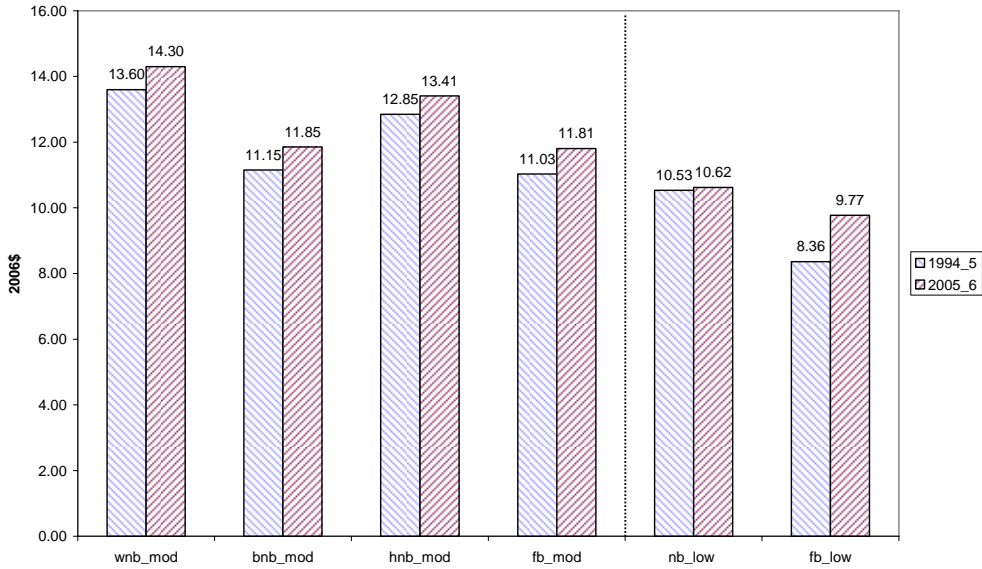
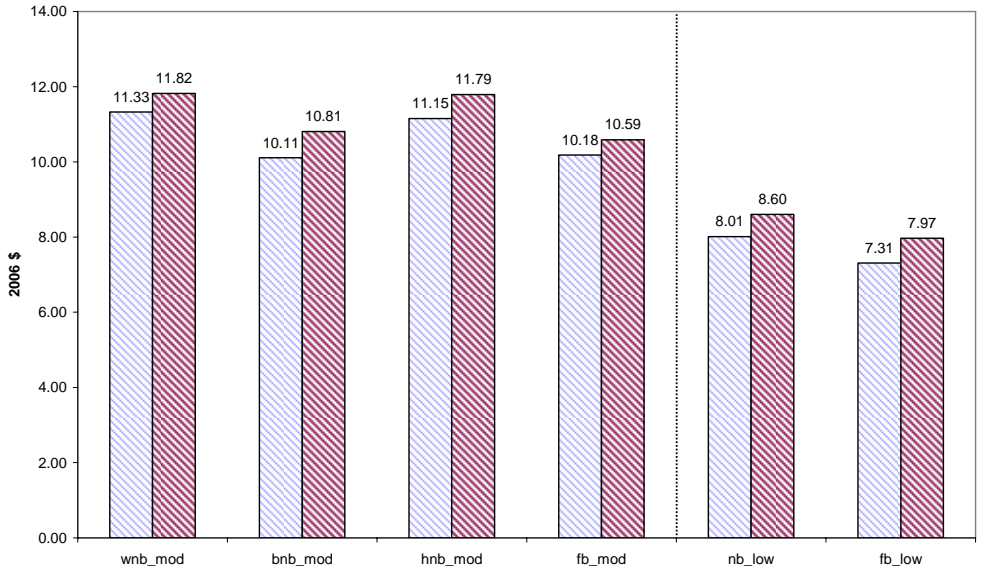


Figure 19: Real Median Wages for 20-34 Females by Race, Nativity and Educational Attainment, 1994-5 and 2005-6



8. Conclusion

“The call for job applications seemed routine; certainly nobody at corporate headquarters gave it much thought. A new candy store that would be opening in Times Square needed workers. Starting pay was \$10.75 an hour. But by midmorning yesterday, a huge, swelling, discontented crowd of job seekers was milling around ... The crowd put a human face on jobless statistics at a time when the City’s unemployment rate, 4.5 percent in September (2006), was the lowest since 1988. Several thousand people – mostly young, black and Hispanic – had shown up to apply for fewer than 200 positions, only 65 of them full-time jobs.”

New York Times (Nov. 4, 2006, p. B1)

“On Wednesday, (Circuit City Stores) dismissed 3,400 people, or about 8 percent of its workforce, not because they were doing a bad job and not because the company was eliminating their positions. Instead, executives said the workers were being paid too much and that the company would replace them with new employees who would earn less. It was the second such layoff at Circuit City in the last five years, and it offered an unusually clear window on the ruthlessness of corporate efficiency... They generally earned \$10 to \$20 an hour, making them typical of the broad middle of the American workforce.”

New York Times (April 4, 2007)¹⁴

Although our official statistics indicate near-full employment, a near-riot takes place in America’s richest city when 65 full-time jobs are advertised at \$10.75 an hour—a wage less than the internationally accepted low wage threshold (\$10.99) used to develop our alternative labor market indicators, and only about \$1.50 more than the wage necessary for an adult working full-time full-year to keep her and two children above the national poverty line. The Circuit City firings illustrate the hollowing of the middle of the wage distribution, a process documented for the nation as a whole for the 1990s by Autor, Katz and Kearny (2006). This is consistent with our finding that young workers (ages 20-34) with at least a high school degree but not more than two years of college show a dramatically increased incidence of low wage employment between 1979 and 2006, particularly for men since 2000. Competitive forces have eroded the quality of many “middle-class” jobs, and not just in the industrial heartland.

For an economy that increasingly produces poverty-wage jobs, like that of the U.S., good employment performance is no longer adequately measured by the standard unemployment,

¹⁴ David Leonhardt, “3,400 Layoffs Send a Message to Millions”, p. C1.

employment, and labor force participation rates. This paper reports trends for three alternative labor market indicators that reflect two important dimensions of job quality: very low wages and involuntary part-time work. If alternative measures of this sort were regularly produced for various demographic groups by the Bureau of Labor Statistics and publicized by the mass media, we would be in a much better position to judge our real economic performance, and we might pay more attention in our policy discussions to the disturbing growth of poorly paid jobs among young workers.

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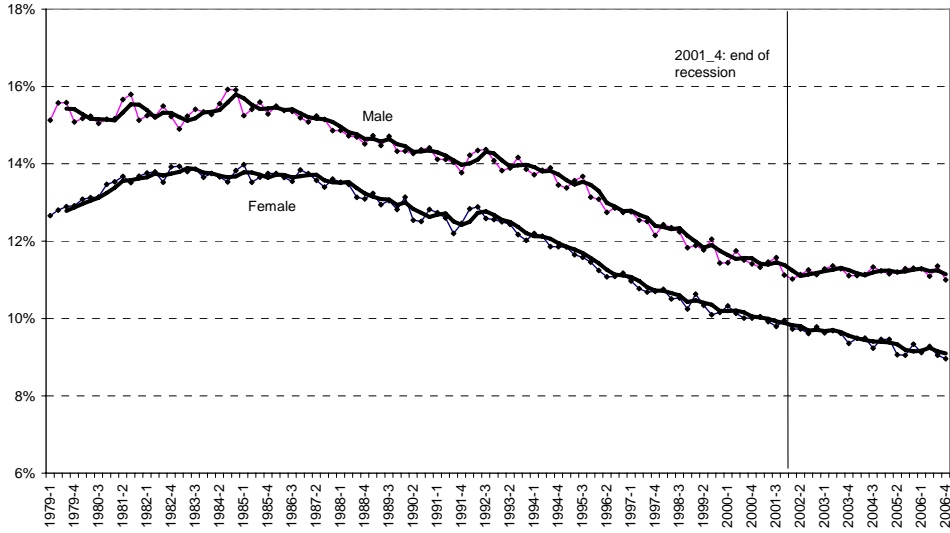
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Appendix: Employment Shares for Young Less-educated Workers

**Figure A1: The Share of Young Moderately Educated Workers
(20-34 with at least a HS degree and not more than 14 years of schooling)
in Total Wage and Salary Employment, 1979-2006**



**Figure A2: The Share of Young Low Educated Workers (20-34 with less than a HS degree)
in Total Wage and Salary Employment, 1979-2006**



**Figure A3: The Nonwhite Foreign-born Share of Young Employed Workers
With Less Than a High School Degree, 1994-2006**

